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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
COLAN, GIOVANNA B

ART UNIT	PAPER NUMBER
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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/723,422	TREPESS ET AL.
	Examiner	**Art Unit**	
	Giovanna Colan	2162	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>09 July 2007</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>*1-14 and 16-39*</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>*1-14 and 16-39*</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>08/16/2007</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

1.   This action is issued in response to applicant filed request for continued

examination (RCE) on 07/09/2007.

2.   Claims 1, 21, and 34 have been amended. No claims were added. Claim 15 was

canceled.

3.   Claims 1 – 14, and 16 – 39 are pending in this application.

4.   Applicant's arguments with respect to amended claims 1, 21, and 34 have been

considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

5.   The information disclosure statement (IDS) was submitted on 08/16/2007. The

submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the

information disclosure statement is being considered by the examiner.

Continued Examination Under 37 CFR 1.114

6.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

10/11/2006 has been entered.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

9.   **Claims 1 – 4, 7, 10 – 14, 16 – 18, and 20 – 39 are rejected under 35**

U.S.C. 103(a) as being unpatentable over Jain et al. (Jain hereinafter) (US Patent

No. 5,983,237, issued: November 9, 1999), in view of Kohonen et al. (Kohonen

hereinafter) (NPL: "Self Organization of Massive Document Collection", IEEE, May

2000), and further in view of Weiss et al. (Weiss hereinafter) (US Patent App. Pub.

No. 2002/0138487 A1, published: September 26, 2002).

Regarding Claim 1, Jain discloses an information retrieval system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions; the system comprising:

a user control for defining a search criterion for selecting information items (Col. 9, lines 25 – 26, Jain);

a detector for detecting those positions corresponding to the selected information items (Col. 1,5 and 20, lines 34 – 37 and 6 – 8; respectively, the [ROW, COLUMN] position, Jain).

However, Jain is silent with respect to self-organizing map. On the other hand, Kohonen discloses self-organizing map (Page 1, b. Scope of This Work, para. 1, Kohonen). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Kohonen's teachings to the system Jain. Skilled artisan would have been motivated to do so, as suggested by Kohonen (Page 1, b. Scope of This Work, para. 1, Kohonen), to be able to map any representative subset of old input data and new input items straight into the most similar models without re computation of the whole mapping. In addition, both of the references (Jain and Kohonen) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, databases management systems, searching, mapping, visual representations, and positions. This close relation between both of the references highly suggests an expectation of success.

Furthermore, the combination of Jain in view of Kohonen discloses:

a graphical user interface for displaying display points representing those

positions within the self-organizing map corresponding to the selected information items

(Col. 11, and 12, lines 62 – 64 and 1 –3, respectively, Jain[1]; and Page 1, b. Scope of

This Work, para. 1, Kohonen and also see Page 579, Fig. 3, "Pointers", Section: C.

Rapid Fine-tuning of the Large Maps, 1) Addressing Old Winners, 1st paragraph in that

section, "...with a pointer corresponding to old winner location stored with each training

vector, the map unit corresponding to the associated pointer is searched for first, and

then a local search for ...", Kohonen); and

a processor, responsive to the selected information items defined by the search

criterion, for providing one or more representations representative of the information

content of the selected information items (Col. 11, lines 24 – 29, the Query Processor,

Jain),

wherein the information items are at least associated with image items

comprising image data (Col. 12, lines 57 – 59, Jain).

The combination of Jain in view of Kohonen further discloses: wherein the

processor is responsive to the selected information items and provides one or more

image (Col. 7, lines 35 – 39 and 45 – 47; Jain). However, the combination of Jain in

view of Kohonen does not explicitly disclose that the one or more image are

representative of the information content of the selected information items defined by

the search criterion. On the other hand, Weiss discloses the processor that; provides

one or more image representative of the information content of the selected information

items defined by the search criterion (Fig. 6, items 103 – 104, Page 5, [01109] - [0110],

lines 1 and 1 – 3, Weiss; and also see Page 5 – 6, [0128] – [0133], "...the attributes of

the Web sites found in a search are presented in a subjected visual presentation,

possibly a 3D-dimensional...", "...The Web sites are presented as buildings in a street",

"The importance attribute is expressed in the height of the buildings.", "The width of the

building may reveal the amount of content.", "A display-window in a building may

represent the existence of an e-store", Weiss). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to incorporate the Weiss'

teachings to the system of the combination of Jain in view of Kohonen. Skilled artisan

would have been motivated to do so, as suggested by Weiss (Page 2, [0026] and

[0027], Weiss), to provide presentation of web sites, such that the visualization reveals

certain attributes of the presented web sites; and to provide a search of Web sites,

which classifies the Web site according to their attributes. In addition, the applied

references (Jain, Kohonen, and Weiss) teach features that are directed to analogous art

and they are directed to the same field of endeavor of database management system,

such as search engines with selection criteria. This relation between the applied

references highly suggests an expectation of success.

Regarding Claim 2, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the graphical user interface is operable to

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[1] In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 –

display a two-dimensional display array of the said display points (Col. 16, lines 8 – 12,

Jain[2]).

Regarding Claim 3, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, in which a dither component is applied to the

mapping between information items and nodes in the self-organizing map (Page 1, b.

Scope of This Work, para. 1, Kohonen) so that information items that share a node tend

to map to closely spaced, but different positions in the displayed array (Col. 12, lines 61

– 65, Structure SYNONYM, Jain).

Regarding Claim 4, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, in which the information items are mapped to nodes

in the self-organizing map (Page 1, b. Scope of This Work, para. 1, Kohonen) on the

basis of a feature vector derived from each information item (Col. 9, lines 44 – 50, Jain).

Regarding Claim 7, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, in which the information items comprise textual

information, the nodes being mapped by mutual similarity of at least a part of the textual

information (Col. 12, lines 61 – 65, Structure SYNONYM, Jain).

39, Jain).
[2] Wherein examiner interprets the matrix as the two-dimensional array claimed.

Regarding Claim 10, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the said user control comprises:

search means for carrying out a search of the information items (Col. 9, lines 25

– 26, Jain);

the search means and the graphical user interface being arranged to co-operate

(Fig. 4, item 212, Col. 15, lines 51 – 52, Jain) so that only those display points

corresponding to information items selected by the search are displayed on the user

display (Col. 15, lines 46 – 49, Jain).

Regarding Claim 11, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the said processor is operable to detect

clusters of similar information items (Col.20, lines 6 – 12, Jain) and to provide

representations representative of the information content of the respective clusters (Col.

20, lines 11 – 12, TID corresponds with "sky", Jain).

Regarding Claim 12, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the processor is oprable to provide the or

each said representation on the user display as a label of the display points

corresponding to the information items represented thereby (Fig. 7, 8, and 9, Page 4

and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss)

Regarding Claim 13, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the label is a word or set of words (Fig. 8,

Page 5, [0099], lines 5 – 9, "Charlie's Angels", Weiss).

Regarding Claim 14, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the processor determines, in respect of a set

of information items with which a label is to be associated, the most frequently used

word or set of words in the information items corresponding to the selected information

items and applies that word or that set of words as the label (Page 2 and 4, [0046] and

[0097], lines 1 – 2 and 1 – 4; respectively, Weiss).

Regarding Claim 16, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the said processor is operable to select,

from the set of image items, an image item which is representative of the set of image

items as a whole according to a predetermined selection criterion (Page 6, [0139], lines

1 – 6, selecting the Entertainment "continent", Weiss).

Regarding Claim 17, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the processor is operable to select the

image item a property of which is nearest to the average of the same property of the

said set of image items (Page 6, [0139], lines 1 – 6, selecting the Entertainment "continent", Weiss[3]).

Regarding Claim 18, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, wherein the said one or more representative image items are applied as labels to the display points corresponding to the information items represented thereby (Page 6, [0137], lines 7 – 11, Weiss).

Regarding Claim 20, the combination of Jain in view of Kohonen and further in view of Weiss discloses a Video acquisition and/or processing apparatus comprising a system (Fig. 3, item 150, Jain).

Regarding Claim 21, the combination of Jain in view of Kohonen and further in view of Weiss discloses an information retrieval method in which a set of distinct information items map to respective nodes in a self-organizing map (Page 1, b. Scope of This Work, para. 1, Kohonen) by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the self-organizing map (Page 1, b. Scope of This Work, para. 1, Kohonen) the method comprising the steps of:

defining a search criterion for selecting information items (Col. 9, lines 25 – 26, Jain);

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[3] Wherein examiner interprets the subject Entertainment "continent", which includes TV series, Movies, etc, as the property nearest to the average of the same property claimed.

detecting those positions within the self-organizing map (Page 1, b. Scope of

This Work, para. 1, Kohonen)corresponding to the selected information items (Col. 15

and 20, lines 34 – 37 and 6 – 8; respectively, the [ROW, COLUMN] position, Jain[4]);

displaying at least display points which are at positions representing those

positions within the self-organizing map corresponding to the selected information items

(Col. 11 and 15, lines 62 – 64 and 46 – 49, respectively, Jain[5] Page 1, b. Scope of This

Work, para. 1, Kohonen and also see Page 579, Fig. 3, "Pointers", Section: C. Rapid

Fine-tuning of the Large Maps, 1) Addressing Old Winners, 1st paragraph in that

section, "…with a pointer corresponding to old winner location stored with each training

vector, the map unit corresponding to the associated pointer is searched for first, and

then a local search for …", Kohonen); and

in response to the selected information items defined by the search criterion,

providing one or more representations representative of the information content of the

selected information items (Col. 11, lines 24 – 29, Jain).

wherein the information items are at least associated with image items

comprising image data (Col. 12, lines 57 – 59, Jain); and

wherein the providing step includes providing one or more image items

representative of the information content of the selected information items defined by

the search criterion (Col. 7, lines 35 – 39 and 45 – 47; Jain; and Fig. 6, items 103 – 104,

Page 5, [01109] - [0110], lines 1 and 1 – 3, Weiss; and also see Page 5 – 6, [0128] –

[0133], "…the attributes of the Web sites found in a search are presented in a subjected

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[4] Wherein the indexing B-tree corresponds to the array of nodes claimed.

visual presentation, possibly a 3D-dimensional...", "...The Web sites are presented as

buildings in a street", "The importance attribute is expressed in the height of the

buildings.", "The width of the building may reveal the amount of content.", "A display-

window in a building may represent the existence of an e-store", Weiss).

Regarding Claim 22, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a method, wherein the displaying step displays a two-

dimensional display array of the said display points (Col. 16, lines 8 – 12, Jain[6]).

Regarding Claim 23, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a method, comprising:

carrying out a search of the information items (Col. 9, lines 25 – 26, Jain);

displaying on the display that only those display points corresponding to

information items selected by the search are displayed on the user display (Col. 15,

lines 46 – 49, Jain).

Regarding Claim 24, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a method, comprising detecting clusters of similar information

items (Col. 20, lines 6 – 12, Jain) and providing representations representative of the

information content of the respective clusters (Col. 20, lines 11 – 12, TID corresponds

with "sky", Jain).

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[5] In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 –

Regarding Claim 25, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, comprising providing the or each said representation on the user display as a label of the display points corresponding to the information items represented thereby (Fig. 7, 8, and 9, Page 4 and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss).

Regarding Claim 26, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, wherein the label is a word or set of words (Fig. 8, Page 5, [0099], lines 5 – 9, "Charlie's Angels", Weiss).

Regarding Claim 27, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, in which the information items are at least associated with image items, and

comprising providing one or more image items representative of the information content of the selected information items defined by the search criterion (Col. 9, lines 25 – 29 Jain; and Fig. 6, item 105, Page 5, [0111], lines 1 – 5, Weiss).

Regarding Claim 28, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, comprising selecting, from the set of image items, an image item which is representative of the set of image items as a whole according to a

predetermined selection criterion (Page 6, [0139], lines 1 – 6, selecting the

Entertainment "continent", Weiss).

Regarding Claim 29, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a method, comprising selecting the image item a property of

which is nearest to the average of the same property of the said set of image items

(Page 6, [0139], lines 1 – 6, selecting the Entertainment "continent", Weiss[7]).

Regarding Claim 30, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a computer software having program code for carrying out a

method (Col. 22, lines 50 – 52, programming interface, Jain).

Regarding Claim 31, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a providing medium for providing program code (Col. 22, lines

50 – 52, the plug-in architecture, Jain).

Regarding Claim 32, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a medium, the medium being a storage medium (Col. 19, lines

51 – 52, Jain).

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[6] Wherein examiner interprets the matrix as the two-dimensional array claimed.
[7] Wherein examiner interprets the subject Entertainment "continent", which includes TV series, Movies, etc, as the property nearest to the average of the same property claimed.

Regarding Claim 33, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a medium, the medium being a transmission medium (Col. 17,

lines 15 – 18, Jain).

Regarding Claim 34, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a user interface of an information retrieval system in which a

set of distinct information items map to respective nodes self-organizing map (Page 1,

b. Scope of This Work, para. 1, Kohonen) by mutual similarity of the information items,

so that similar information items map to nodes at similar positions in self-organizing map

(Page 1, b. Scope of This Work, para. 1, Kohonen) the interface comprising:

a user control for defining a search criterion for selecting information items (Col.

9, lines 25 – 26, Jain); and

a graphical user interface arranged to displaying display points representing

those positions within the self-organizing map corresponding to the selected information

items (Col. 11 and 12, lines 62 – 64 and 1 - 3, respectively, Jain[8]; and Page 1, b. Scope

of This Work, para. 1, Kohonen and also see Page 579, Fig. 3, "Pointers", Section: C.

Rapid Fine-tuning of the Large Maps, 1) Addressing Old Winners, 1st paragraph in that

section, "…with a pointer corresponding to old winner location stored with each training

vector, the map unit corresponding to the associated pointer is searched for first, and

then a local search for …", Kohonen) and to display one or more representations

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[8] In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 –
39, Jain).

representative of the information content of the information items selected by the search

criterion (Col. 11, lines 24 – 29, Jain).

wherein the information items are at least associated with image items

comprising image data (Col. 12, lines 57 – 59, Jain); and

wherein the graphical user interface is configured to display one or more image

items representative of the information content of the selected information items defined

by the search criterion (Col. 7, lines 35 – 39 and 45 – 47; Jain; and Fig. 6, items 103 –

104, Page 5, [01109] - [0110], lines 1 and 1 – 3, Weiss; and also see Page 5 – 6, [0128]

– [0133], "...the attributes of the Web sites found in a search are presented in a

subjected visual presentation, possibly a 3D-dimensional...", "...The Web sites are

presented as buildings in a street", "The importance attribute is expressed in the height

of the buildings.", "The width of the building may reveal the amount of content.", "A

display-window in a building may represent the existence of an e-store", Weiss).

Regarding Claim 35, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a user interface, wherein the said user control comprises:

search means for carrying out a search of the information items (Col. 9, lines 25

– 26, Jain);

the search means and the graphical user interface being arranged to co-operate

(Fig. 4, item 212, Col. 15, lines 51 – 52, Jain) so that only those display points

corresponding to information items selected by the search are displayed on the user

display (Col. 15, lines 46 – 49, Jain).

Regarding Claim 36, the combination of Jain in view of Kohonen and further in view of Weiss discloses an interface according to claim 34, wherein the graphical user interface is arranged to display representations representative of the information content of respective-clusters of similar information items (Col. 20, lines 6 – 12, TID corresponds with "sky", Jain).

Regarding Claim 37, the combination of Jain in view of Kohonen and further in view of Weiss discloses an interface, wherein graphical user interface is operable to provide the or each said representation as a label of the display points corresponding to the information items represented thereby (Fig. 7, 8, and 9, Page 4 and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss).

Regarding Claim 38, the combination of Jain in view of Kohonen and further in view of Weiss discloses an interface, wherein the label is a word or set of words (Fig. 8, Page 5, [0099], lines 5 – 9, "Charlie's Angels", Weiss).

Regarding Claim 39, the combination of Jain in view of Kohonen and further in view of Weiss discloses an interface, wherein the said representations are image items which are applied as labels to the display points corresponding to the information items represented thereby (Page 6, [0137], lines 7 – 11, Weiss).

11.   Claims 5 – 6, 8 – 9, and 19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Jain et al. (Jain hereinafter) (US Patent No. 5,983,237, issued:

November 9, 1999), in view of Kohonen et al. (Kohonen hereinafter) (NPL: "Self

Organization of Massive Document Collection", IEEE, May 2000), and further in

view of Herz et al. (Herz hereinafter) (US Patent No. 5,754,938, issued: May 19,

1998).

Regarding Claim 5, the combination of Jain in view of Kohonen and further in

view of Weiss discloses all the limitations as disclosed above including a feature vector

for an information item. However, the combination of Jain in view of Kohonen is silent

with respect to a set of frequencies of occurrence. On the other hand, Herz discloses a

feature vector for an information item that represents a set of frequencies of occurrence,

within that information item, of each of a group of information features (Col. 56, lines 50

– 54, Herz). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the Herz' teachings to the system of the combination

of Jain in view of Kohonen. Skilled artisan would have been motivated to do so, as

suggested by Herz (Col. 7 and 8, lines 9 – 11 and 65 – 68 and 1 – 5, Herz), to measure

similarities of profiles describing target objects of user's interests; and to further predict

the information consumption patterns of a user allowing pre-caching of data at locations

on the data communication network and at times that minimized the traffic flow in the

communication network to thereby efficiently provide the desired information to the user

and/or conserve valuable storage space by only storing those target object (or

segments thereof) which are relevant to the user's interest. In addition, the applied

references (Jain, Kohonen, and Herz) teach features that are directed to analogous art

and they are directed to the same field of endeavor of database management system,

such as, search engine and clustering. This relation between the applied references

highly suggests an expectation of success.

Regarding Claim 6, the combination of Jain in view of Kohonen and futher in view

of Herz discloses a system, in which the information items comprise textual information,

the feature vector for an information item represents a set of frequencies of occurrence,

within that information item, of each of a group of words (Col. 56, lines 47 – 52, textual

attribute, Herz).

Regarding Claim 8, the combination of Jain in view of Kohonen and futher in view

of Herz discloses a system, in which the information items are pre-processed for

mapping by excluding words occurring with more than a threshold frequency amongst

the set of information items (Col. 40, lines 14 – 16, Herz).

Regarding Claim 9, the combination of Jain in view of Kohonen and futher in view

of Herz discloses a system, in which the information items are pre-processed for

mapping by excluding words occurring with less than a threshold frequency amongst

the set of information items (Col. 40, lines 14 – 16, Herz).

Regarding Claim 19, the combination of Jain in view of Kohonen and futher in

view of Herz discloses a portable data processing device comprising a system

according to claim 1 (Col. 30, lines 35 – 37, Herz).

Response to Arguments

1.   In response to applicant's arguments against the references individually, one

cannot show nonobviousness by attacking references individually where the rejections

are based on combinations of references. See *In re Keller,* 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986).

2.   Applicant argues that; "the '237 patent fails to disclose a self-organizing map.

Thus, the '237 patent must fail to disclose a detector for detecting positions within a self-

organizing map, and graphical user interface for displaying display points representing

positions within the self-organizing map, as required by Claim 1." And that; "the '237

patent discloses a system that is in direct contrast to how self-organizing maps operate

since self-organizing maps compare all the features simultaneously, while '237 teaches

against the possibility of using a self organizing map or neural network."

Examiner respectfully disagrees. First, as stated in the Office action dated

December 15, 2006, the Jain reference (refers as '237 by applicant) does disclose a

detector for detecting positions within a visual representation and a graphical user

interface for displaying for display points representing positions corresponding to the

selected information items (Col.10, and 11 – 12, lines 36 – 39 and, 62 – 64, 1- 3, Jain).

However, as discussed in that Office Action, the Jain reference does not explicitly

disclose that such positions are within a self-organizing map. Therefore, the Kohonen

reference was incorporated to the rejection. Specifically, Kohonen teaches the self-

organizing map (which, as well known in the art, is a visual representation), the

limitation of: detecting positions within a self-organizing map corresponding to the

selected information items (Abstract: "It is based on self-organizing map (SOM)

algorithm... In a practical experiment we mapped 6 840 568 patent abstract onto a 1

002 240-node SOM...", Kohonen), and also the limitation: displaying points representing

those positions with the self organizing map corresponding to the selected information

items (Page 1, b. Scope of This Work, para. 1, Kohonen and also see Page 579, Fig. 3,

"Pointers", Section: C. Rapid Fine-tuning of the Large Maps, 1) Addressing Old

Winners, 1st paragraph in that section, "...with a pointer corresponding to old winner

location stored with each training vector, the map unit corresponding to the associated

pointer is searched for first, and then a local search for ...", Kohonen). Additionally, the

references (Jain and Kohonen) teach features that are directed to analogous art and

they are directed to the same field of endeavor, such as, databases management

systems, searching, mapping, visual representations, and positions. Therefore, the

references are not in contrast with each other. The relation between the references

highly suggests an expectation of success.

Second, it is noted that the features upon which applicant relies (i.e., self-

organizing maps compare all the features simultaneously) are not recited in the rejected

claim(s). Although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993).

3.   Applicant argues that; "the outstanding Office Action does not provide motivation

for combining the teaching of the '487 application with the combined '237 patent and

Kohonen et al. system".

Examiner respectfully disagrees. The Office Action dated December 15, 2006

does provide motivation for combining such references (See rejection of claim 1,

motivation for the combination of Jain in view of Kohonen and further in view of Weiss,

in this Office Action above).

Prior Art Made Of Record

1. Jain et al. (US Patent No. 5,983,237, issued: November 9, 1999) discloses a visual dictionary.

2. Herz et al. (US Patent No. 5,754,938, issued: May 19, 1998) discloses a pseudonymous server for system for customized electronic identification of desirable objects.

3. Weiss et al. (US Patent App. Pub. No. 2002/0138487 A1, published: September 26, 2002) discloses a method and system for mapping and searching the internet and displaying the results in a visual form.

4. Mao et al. (US Patent No. 7,031,909 B2) discloses a method and system naming a cluster of words and phrases.

5. Rajasekaran et al. (US Patent No. 6,959,303 B2) discloses efficient searching teachniques.

6. Kohonen et al. (Kohonen hereinafter) (NPL: "Self Organization of Massive Document Collection", IEEE, May 2000).

Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna Colan whose telephone number is (571) 272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
September 25, 2007

SANA AL-HASHEMI
PRIMARY EXAMINER